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What matters for well-being: Individual perceptions of quality of life before and after important life events

Anke C. Plagnol · Jacqueline Scott

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Abstract In recent decades, what matters for individual quality of life (QoL) has increasingly been the focus of empirical social science research. However, individuals are rarely asked directly what is important for their quality of life as part of large-scale surveys. The present analysis studies perceptions of what matters for QoL in a large-scale longitudinal dataset – the British Household Panel Survey – which includes an open-ended question on QoL in three waves spanning ten years. We find that concepts of QoL change over the life course and differ between men and women. We hypothesize that changes in perceptions of QoL are related to important life events, such as the birth of a first child and retirement. These life events constitute 'turning points' after which individuals often shift their priorities of what matters for their QoL. We further explore whether such shifts in priorities are stable or disappear more than five years after the life event.

Keywords Quality of life · life events · turning points · gender differences · life course

Anke C. Plagnol
Department of Sociology, University of Cambridge, Free School Lane, Cambridge CB2 3RQ, UK
Tel.: +44-01223-334537
E-mail: az266@cam.ac.uk

Jacqueline Scott
Department of Sociology, University of Cambridge, Free School Lane, Cambridge CB2 3RQ, UK

1 Introduction

In recent years, social scientists have increasingly drawn their attention to the study of people's quality of life (for a short overview in gerontology see George, 2006). How people *evaluate* their quality of life is often measured by subjective indicators – such as life satisfaction and happiness. A considerable advantage of subjective well-being measures is that survey respondents assess for themselves which aspects of life are important for their well-being. Measures of overall satisfaction with life allow respondents to weigh each domain of life according to their own standards to form an evaluation of their satisfaction (Diener et al., 1985). However, there is little empirical research on how individuals themselves *conceptualize* quality of life. The aim of the present study is to analyze individuals' perceptions of what is important for quality of life and how these change over the life course.

The life domain approach, pioneered several decades ago by Angus Campbell and colleagues, posits that overall well-being depends on satisfaction with each of several domains of life (Campbell, 1981; Campbell et al., 1976). These and other studies on domain satisfaction indicate that satisfaction with health, family and finances are most important for overall life satisfaction (see also Cummins, 1996; Salvatore and Munoz Sastre, 2001; Van Praag and Ferrer-i Carbonell, 2004; Van Praag et al., 2003), and it is therefore likely that these are the areas of life people reflect on when they assess their personal well-being. An earlier cross-sectional study by Cantril (1965) also indicates that economic factors, as well as health and family, rank highly among people's personal concerns.

In the present study we use longitudinal data from the British Household Panel Survey to investigate what individuals consider to be important for their quality of life. The aims of the present study are threefold. We first ask whether perceptions of quality of life change over the life course and whether these perceptions differ between men and women. We then consider several important life events as possible

causes for changing perceptions of quality of life. Lastly, we are interested in knowing whether changes in these perceptions are transient or last for more than five years.

We have selected four life events which typically occur at different stages of the life course, and we hypothesize that these life events affect men and women differently with regards to what they consider to be important for quality of life. We find that perceptions of quality of life differ significantly between genders and change considerably over the life course. Some of these changes can be attributed to life events, which are experienced differently between men and women.

2 Conceptual framework

The notion that individuals' concepts of what matters for their well-being change has been stated before. For instance, various studies have noted that old people are more satisfied with their finances than young people with similar income levels (George, 1992; Hansen et al., 2008). One explanation that has been put forward for this observation is that older people adjust their financial aspirations downward (George, 1992). Changes in aspirations for having a happy family and material goods have also been found in an American sample (Plagnol and Easterlin, 2008). Blanchflower and Oswald (2004) attribute their finding that life satisfaction is U-shaped in age in Britain and the US to the possibility that older people relinquish some of their aspirations.

Aspirations are conceptually different than perceptions of what matters for one's quality of life. Nevertheless, changes in one imply a change in the other. The examples mentioned above provide support for our hypothesis that what matters for people's quality of life changes over the life course.

We are particularly interested in the impact of life events on perceptions of what matters. Life events, such as family formation and retirement often imply a change in the social role of the individual and thus have a likely impact on well-being. Many typical life events tend to cluster at certain stages of the life course and may have neg-

ative consequences for well-being if they do not occur at the usual age (McLanahan and Sorensen, 1985). For instance, family formation usually occurs in young adulthood, while exit from the labor market is typically experienced towards the end of the life course. In our analysis, we are interested in whether these life events are accompanied by changes in individuals' priorities for their quality of life. Such events are often denoted as 'turning points' in the life course literature. The use of the term turning points differs between authors and the definition we use here does not only include unusual events, but also normative life transitions such as graduating from university. We borrow the definition formulated by Wheaton and Gotlib (1997) who describe a turning point as "a change in direction in the life course, with respect to a previously established trajectory, that has the long-term impact of altering the probability of life destinations" (Wheaton and Gotlib, 1997, p. 5). Normative life events, such as becoming a parent, are included in this definition as such transitions involve adjustment to new social roles and thus changes in life trajectories. Turning points can only be identified retrospectively and data before and after the event are therefore needed (George, 2009). The dataset we employ in our analysis – the BHPS – has such information for a number of turning points and allows us to observe intra-individual as well as inter-individual changes in perceptions of quality of life.

In our analysis, we focus on life events that are experienced by many and are often age-related. These events include entering a serious partnership either through cohabitation or marriage, the birth of a first child, the last child leaving the household, and retirement. Brim and Ryff (1980) caution against the assumption that only unusual, attention grabbing events matter for personal change. Widely experienced events, such as the ones we selected for our analysis, are also important and, as we will demonstrate below, can alter an individual's perception of what matters for quality of life.

We further hypothesize that the events we have selected might have a different influence on men and women with regards to their priorities for quality of life. For in-

stance, women are more likely than men to stay at home and take care of the child after childbirth (Gershuny, 2004; Harkness, 2008). It is therefore possible that women's perceptions of what matters for their quality of life are more affected by childbirth than that of their partners. Similarly, women might be affected more by children leaving the household because they are more likely to have left the labor force to raise children. Entering a partnership, on the other hand, is likely to have a similar impact on both genders. With regards to retirement, we speculate that men might be more affected than women because, on average, men are more likely to base their identity on their jobs while women are often less career-centric, preferring to balance work and family identities (Blossfeld and Drobnic, 2001). As we will show below, there are indeed gender differences in perceptions of what matters for one's quality of life though our tentative hypotheses are not always verified.

3 Data, measures and methods

3.1 Data

The data are from the British Household Panel Survey (BHPS), an annual longitudinal study that was started in 1991 (for a full description of the data, including sampling methods and attrition, see Taylor et al., 2009). Our key dependent variable measuring the respondent's personal concept of quality of life was included in three survey years spaced five years apart, 1997, 2002 and 2007. Our analysis is therefore restricted to these three survey years, yielding a total sample size of 40,248 person-year observations. Respondents were asked to list what things they consider to be important for their own quality of life. Depending on their initial responses, survey participants were prompted to list further items, up to a total of four mentions. The survey question is open-ended and does not offer any pre-defined answer options, thus providing a wide variety of responses which were classified into 52 categories by NOP, the fieldwork organization (see Taylor et al., 2009, Appendix 3.18). We re-

duced these initial categories further to 16 items, which capture the main concepts that were mentioned, such as family, health and finances (see Appendix A for the full survey question and classification of mentions). We created a binary variable for each of these 16 items, where each variable takes a value of one if it was mentioned by the respondent and zero otherwise.

Open-ended questions seem most appropriate to assess the salience of a concept because closed questions might not offer all appropriate answer categories and respondents could be tempted to simply guess, answer mechanically, or respond according to social desirability (Schuman and Presser, 1979). Schuman and Scott (1987) note that neither open nor closed questions might be adequate to assess absolute preferences or rankings because both forms can lead to different types of bias. The authors propose that survey questions should rather be used to evaluate changes over time or differences between groups, as we are doing in the present study.

An additional issue with open-ended questions arises because of the necessity of some coding reduction to make analysis possible. In order to prepare the BHPS data for quantitative analysis heterogeneous responses were grouped in the same answer categories thus making the interpretation of results more difficult. For instance, the 'health' category includes mentions which concern the individual's own health as well as responses describing the health status of family members (Scott et al., 2009).

We are primarily interested in knowing to what extent life events influence an individuals perception of what constitutes quality of life. A number of the respondents in our sample experienced significant life events, such as the birth of their first child, between two survey years, and we can therefore compare their definition of quality of life before and after the event. As we have three survey years, it is in some cases possible to assess whether perceptions of quality of life are still changed – if at all – more than five years after the life event. Similarly, some individuals experienced certain life events before our first survey year in 1997. For these individuals we use the 1992 BHPS survey – which includes all of the variables that indicate the life

events we analyze here, with the exception of the open-ended question on quality of life – to assess whether the life event in question occurred between 1992 and 1997 or before 1992. For each life event we create one of two dummy variables; the first takes a value of 1 if the event occurred during the five years preceding the current survey while the second dummy variable has a value of 1 if the event occurred earlier. This coding allows us to assess whether changes in perceptions of quality of life after important life events are temporary or persist for more than five years. We choose a time span of five years because the open-ended questions on quality of life were only included in surveys spaced five years apart. It is, of course, possible that after some life events perceptions of quality of life change for a time span that is much shorter than five years, but the data we have do not allow us to investigate this possibility properly.

3.2 Measures

The life events we have selected for our analysis include entering a serious partnership either through cohabitation or marriage, the birth of a first child, the last child leaving the household, and retirement. Our additional explanatory variables include age, gender, income, education, self-reported health and time dummies.

Our first life event, entering a serious partnership, is usually experienced by individuals in their 20s and 30s for the first time, but it is also possible that respondents enter a partnership after the dissolution of a previous marriage. We derive this life event variable by considering changes in the individual's marital status. Respondents who state that they are "married" or "living as a couple" in the survey year and who reported a different marital status – such as "never married", "widowed", "divorced" or "separated" – in the year before, are considered to have entered a serious partnership. The second life event, the birth of a first child, also usually occurs early in life and is derived from the individual's

household composition. As the QoL questions are spaced five years apart, it is possible that more than one child is born between surveys. We do not differentiate between the birth of one or several children, but rather consider whether the first child was born during that period.

The third life event, the last child leaving the household, is usually experienced later in life [I could actually add the mean ages from the BHPS]. This variable is derived from the individual's number of own children in the household and thus includes cases in which young children left the household after a divorce. The last life event we consider in this analysis is retirement which is also typically experienced later in life. This measure is derived from the respondent's self-reported job status.

We also include the log of household income in the analysis. As it is not possible to take the log of zero, we add a value of one to each income. The income measure we use is an equivalized household income measure which is adjusted for household size and composition by using a conversion factor that is available in the BHPS (see Taylor et al., 2009, Appendix 2.4). The inclusion of income is important in our analysis because income may affect decisions such as when to enter retirement and the timing of having children. For instance, individuals with high household income may be more able to afford having children and those with low incomes may not be in the financial position to retire. However, income is also influenced by life events as, for instance, household incomes may decrease when a child is born and a household member, usually the mother, takes time off work for childcare. We therefore also include years of education as an explanatory variables as this measure is quite stable and should be largely independent of these life events. Our model further includes self-reported health lagged by one survey period because life events such as retirement may be influenced by the respondent's health status.

3.3 Methods

We model the dependent binary variable QoL using a probit specification (for a similar treatment see Ferrer-i-Carbonell, 2005). The following model describes the latent, unobservable variable QoL^* :

$$QoL_{nt}^* = \alpha + \beta age_{nt} + \gamma gender_n + \tau T_t + \varepsilon_{nt} \quad (1)$$

where

$$\varepsilon_{nt} = v_n + \eta_{nt} \quad (2)$$

and n denotes the individual, t denotes time, and ε_{nt} captures the unobservables. We model the error term ε_{nt} using individual random effects, where v_n is the individual random effect and η_{nt} is the usual error term. The individual random effects account for characteristics that are constant within each individual over time. These stable, unobservable characteristics include personality traits such as optimism or extroversion, which might generally bias individual evaluations. The error terms are assumed to be random and not correlated with the observable explanatory variables. It is reasonable to assume that individual random effects, such as personality are not correlated with age and gender.

The inclusion of fixed time effects T – the dummy variables for the 2002 and 2007 waves – accounts for the differences between all waves that are the same for all individuals, such as political events or macroeconomic changes. The model further accounts for age in order to capture changes by age within and across individuals. The results of this model are presented in table 2.

In our second model, we include as additional covariates a set of k explanatory variables – life events and interactions of these life events with gender – denoted by x

in equation 3. Further covariates include income, education and lagged self-reported health.

$$\text{QoL}_{nt}^* = \alpha + \beta \text{age}_{nt} + \gamma \text{gender}_n + \tau T_t + \sum_k \delta_k x_{k,nt} + \varepsilon_{nt} \quad (3)$$

where

$$\varepsilon_{nt} = v_n + \eta_{nt} \quad (4)$$

The error terms are assumed to be random and not correlated with the observable independent variables. However, as has also been pointed out by Ferrer-i-Carbonell (2005), the individual random effects v_n include unobservable time-invariant individual characteristics such as intelligence, which are assumed not to be correlated with explanatory variables such as income. Similar to Ferrer-i-Carbonell (2005) we apply a Mundlak transformation (Mundlak, 1978) to account for this problem (see also Hsiao, 1986). In this specification, some of the observable variables are associated with the individual random effects by assuming the following composition of the individual random effects:

$$v_n = \sum_j \lambda_j \bar{z}_{j,n} + \omega_n \quad (5)$$

In this specification a subset $z_{j,nt}$ of the observable variables $x_{k,nt}$ are assumed to be correlated with the individual random effect, where $j \leq k$. This correlation is denoted by $\lambda_j \bar{z}_{j,n}$ where \bar{z}_j is the mean of z_j over time. In our model, the explanatory variables that are likely correlated with time-invariant individual characteristics such as optimism and intelligence and are therefore part of the subset $z_{j,nt}$ include income and education. It could be argued that age and gen-

der are correlated with individual characteristics such as personality, but most research on personality has found it to be a stable concept [or should we assume personality to be related to age?]. Incorporating the Mundlak transformation, our model is now of the following form:

$$\text{QoL}_{nt}^* = \alpha + \beta \text{age}_{nt} + \gamma \text{gender}_n + \tau T_t + \sum_k \delta_k x_{k,nt} + \sum_j \lambda_j \bar{z}_{j,n} + \omega_n + \eta_{nt} \quad (6)$$

The results of this model are presented in tables 3 and 4. We also estimated all the regressions in this paper using a logit specification with individual fixed effects and found the results to be very similar (results not shown). As demonstrated by Ferrer-i-Carbonell and Frijters (2004) these two approaches usually yield similar results. For the regressions, we use only the eight QoL items as dependent variables that were mentioned by, on average, more than ten percent of respondents. As we describe in the next section, the remaining eight items include quite broad categories such as “other material” or “spiritual” mentions which are more difficult to interpret as they contain quite heterogenous responses.

4 Results

4.1 Life course changes

Are concepts of quality of life stable over the life course or do they vary with age and between genders? Our analysis indicates that concepts of quality of life do not remain stable over the life course. Both men and women mention health as being an important part of their own quality of life more often than any other item overall. However, at young ages, both genders are more likely to mention family and finances than health (Table 1). The percentage of respondents who mention health increases notably with age (Figure 1), with women continuously reporting health more often

than men until late in life. The importance of family for one's quality of life diminishes somewhat with age (Figure 2) and could be related to life events such as the dissolution of unions or children leaving the home. These results are consistent with previous research using American data which shows that with age fewer people consider a happy marriage to be part of the good life (Plagnol and Easterlin, 2008).

On average, men mention finances more often than women and for both genders the importance of finances declines with age. Similarly, friends, home comforts and employment are reported less at old age, whereas the importance of leisure and freedom increases (Table 1). Almost all categories display significant gender differences. In the following, we will concentrate on the first eight items listed in Table 1, which are, on average, mentioned by more than ten percent of the population.

The data include only three survey years spaced five years apart. The means reported in Table 1 are therefore based on the responses of individuals from vastly different birth cohorts. For instance, all the observations for the lower age category (15-25 years) are from people who were born between 1972 and 1992, whereas members of the 65 and above age group were all born before 1942. It is possible that members of the 15-25 age group will place considerably less importance on health and other items once they reach age 65 than the old age group shown here. However, our data support a life course rather than a cohort interpretation of why quality of life perceptions change over time. Although our data span only ten years, probit regressions with individual random effects (see Equation 1) largely confirm the life course trends suggested by the means. As people age, they place more importance on health and leisure, while concentrating less on family, finances, happiness, friends, home comforts and employment (Table 2). Women are more likely than man to mention health, family and happiness, but this gender difference diminishes somewhat with age, as evidenced by the significant, negative interaction between gender and age. Similarly, men are more likely to mention friends, leisure and employment, and the gender difference in these domains decreases with age as well, except for employ-

ment. We include time fixed-effects in the form of indicator variables for the 2002 and 2007 waves – waves 12 and 17 in the survey – to account for general changes between our three waves. Although the age variable does not allow us to distinguish clearly between within-individual changes and between-individual age differences, we can assume that age differences in concepts of quality of life are not merely based on differences in age-group sample composition across time, but do also occur for individuals over a time span of ten years.

4.2 Life events

We have established that perceptions of what matters for quality of life change considerably with age for both men and women. People might simply change their concept of quality of life because they mature and develop a different outlook on life, but a more reasonable explanation would be that through life experiences individuals shift their perception of what is important for their quality of life. For instance, the importance of family might only be salient after one is in a committed partnership or after the birth of a child. In a regression age would largely proxy for such life events, although the effects of two events might cancel each other out.

We test the hypothesis that concepts of quality of life are shaped by life events through the example of four events which were experienced by a sufficiently high number of people between 1997 and 2007. These events include entering a committed partnership through either marriage or cohabitation, the birth of a first child, the last child leaving the home, and retirement. We further distinguish between changes in perceptions of quality of life up to five years after the event and more lasting changes, measured more than five years later.

Indeed, entering a committed relationship, such as marriage or cohabitation, led people to mention family, happiness and home comforts more often than before, while friends were considered less important for one's quality of life (Tables 3, 4).

Except for the mention of home comforts, these changes persisted even more than five years after the start of the relationship. These changes applied equally to men and women, thus refuting the assumption that women might be more focused on family after entering a relationship. In addition, both genders were more likely to mention health and finances as an important part of quality of life six or more years after entering a serious relationship.

Respondents who experienced the birth of their first child between any of the three survey years were more likely to mention family than before the event. They were also less likely to mention friends, but none of these changes differed significantly between men and women in the short-term. Increased mentions of family continued until more than five years after the birth, as did less frequent mentions of friends. However, more than five years after the event, women were even to a greater extent less likely than men to consider friends as being important for quality of life, and they were also more likely to mention happiness. We thus observe some – though not large – differences in the effect of children on perceptions of quality of life of men and women.

It is perhaps not surprising that both genders were more likely to mention family as an important aspect of their quality of life five or more years after the birth of their first child. After all, most people still share the same household with their child when it is 5 years or older and the event of having a child is therefore salient in their daily lives. What happens once the last child leaves the household and parents are confronted with an empty nest? Will they be less likely to mention the importance of family if they are not in daily contact with their children? Our analysis did not show any short-term changes in perceptions of quality of life after the last child has left the household – neither for women nor for men. However, more than five years after the event both men and women were less likely to mention family.

Another event that occurs towards the end of the life course is retirement, and for this life transition one can observe several changes in perceptions of quality of

life. Within five years of retirement men were more likely to mention health, but later on both genders were less likely to mention it than before. Family and, not surprisingly, employment were mentioned less after retirement, while friends gained in importance. These effects continued on more than five years after retirement, indicating that people who have retired noticeably shift their perceptions. In addition, both genders were less likely to mention happiness more than five years after retirement.

4.3 Marginal effects

[to be added]

5 Discussion

We hypothesized that perceptions of quality of life are not a stable concept over the life course and expected significant differences between men and women. Indeed, life events – most notably entering a partnership and retirement – seem to influence what people consider to be important in life. However, men and women mostly reacted equally to life events although overall perceptions of quality of life differ between the two genders.

Although women are more likely to take on childcare responsibilities, both men and women shift their priorities towards family, away from friends, after the birth of a first child. Parenthood as a turning point does therefore not seem to be strongly influenced by the amount of time that each partner potentially devotes to childcare. Similarly, we do not find gender differences in changes in perceptions of quality of life when the last child leaves the household. Our analysis suggests that the turning points studied here are not gender specific concerning perceptions of quality of life. We only observe small gender differences in such perceptions with regards to retirement.

Among the four life events that we have considered here, entering a partnership and retirement seem to have the largest effects of perceptions of quality of life. Life events do indeed explain some of the changes in concepts of quality of life with age, but after controlling for these events we still observe significant changes over the life course, which are indicated by significant age coefficients (Tables 3, 4). Of course, there are many other changes in circumstances that could lead to changes in one's concept of quality of life which were not included in our analysis due to data limitations. For instance, someone who made new friends between any two survey years might subsequently report a higher importance of having good friends, but unfortunately the range of possible life changes are too numerous to capture in full.

However, the life events studied here to some extent explain the age pattern of mentions of family that we considered earlier (Figure 2). More people in their mid 20s and early 30s consider family to be important for quality of life. This is roughly the age range when people usually enter long-term partnerships and start families. The importance of family diminishes later in life when children leave the household and individuals enter retirement. Our results thus support a life course rather than a cohort explanation for differences in perceptions of quality of life across ages.

It would also be interesting to see to what extent people's conceptualizations of quality of life influence their *evaluations* of QoL. The BHPS includes several measures of quality of life, such as life satisfaction, happiness and the 12-item General Health Questionnaire (Goldberg, 1978). A detailed analysis of the association between perceptions of QoL and these measures of QoL would be beyond the scope of the current study, but to investigate this interesting point further we will now briefly describe such an association for the case of marriage.

For this purpose we compare the life satisfaction before and after marriage of those who mention family as an important aspect of their QoL before marriage to that of individuals who do not prioritize family beforehand. The unadjusted mean life satisfaction scores in Figure 3 show that those who consider family

to be important for their QoL at some point within the four years preceding marriage may get a larger temporary boost from marriage than those who do not. However, the mean life satisfaction of both groups is rather similar once this “honeymoon period” wears off.¹ Figure 3 only displays unadjusted means and it is therefore possible that the two groups that are compared here differ in other aspects than only their attitude towards the importance of family for their QoL.

6 Conclusion

Our analysis showed that people’s perceptions of what matters for QoL change over the life course. However, these shifts in priorities may be affected by a focusing effect (Schkade and Kahneman, 1998). A focusing effects describes how people judge some aspects of their own or another person’s life to be more important for their life than they actually are. Thus, the salience of recent events like the birth of a child may lead individuals to believe that these events will have a greater impact on their QoL than is actually the case. In a recent study Powdthavee (2009) found that people who became severely disabled eventually reverted to their previous levels of satisfaction in various domains of life, with the exception of satisfaction with health and income which remained significantly lower than before the onset of disability. As these are only two domains affecting overall life satisfaction, the overall well-being of disabled individuals may not be as low as others may assume because third persons tend to overestimate the effect of one aspect of life on life overall.²

To fully investigate whether such focusing effects are present in the current study one would need to analyze whether the relative importance of life domains that are affected by the life events studied here changes after these life events

¹ A honeymoon period in terms of increased life satisfaction during the years surrounding marriage is often found in the literature (e.g. Lucas et al., 2003; Zimmermann and Easterlin, 2006)

² In their seminal study Brickman et al. (1978) found the subjective well-being of paraplegics to be not as low as others would expect.

have taken place. However, such an analysis would be beyond the scope of this paper.

Other studies have shown that the sequence of questions in a survey matters because the respondent's attention is drawn to specific events in their life [add ref]. Strack et al. (1988) found that college students who were asked about their dating history before answering questions on their own happiness showed a much larger correlation between dating history and subjective well-being than students who answered the happiness question first. This study also demonstrates that the context in which subjective well-being questions are asked matters. It is therefore possible that such focusing and contexts effects may play a large role in our study because the open-ended quality of life questions were asked at the very end of the survey. However, our analysis showed an association between perceptions of what matters for QoL and events that occurred more than five years ago where the salience of the event would be less pronounced than for more recent changes in life circumstances.

Figures

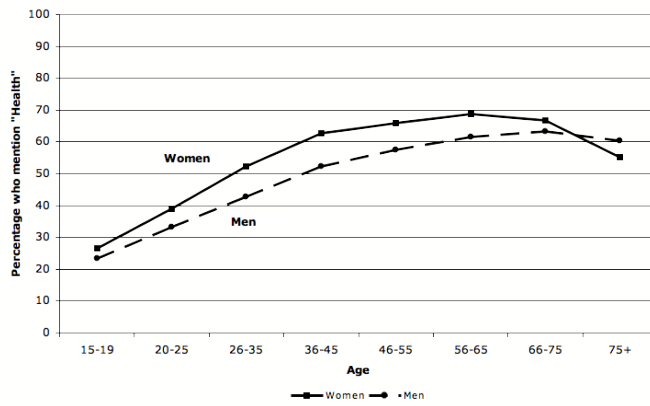


Fig. 1 Percentage of respondents who consider *Health* to be important for quality of life, by gender (1997, 2002 and 2007)

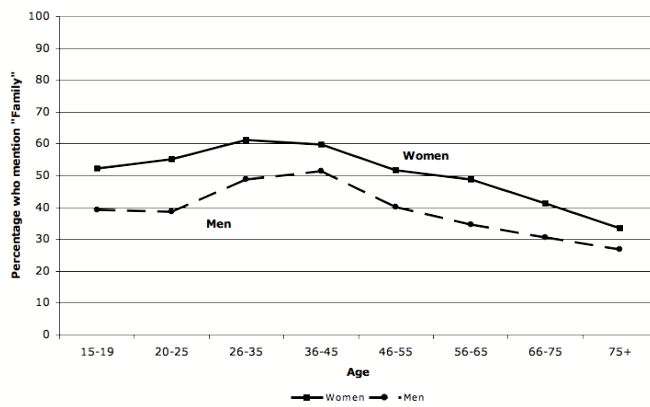


Fig. 2 Percentage of respondents who consider *Family* to be important for quality of life, by gender (1997, 2002 and 2007)

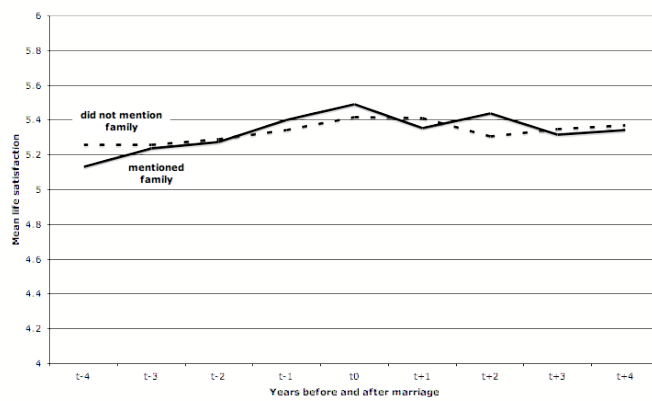


Fig. 3 Mean life satisfaction before and after marriage of those who mention *family* to be important for their QoL within the four years preceding marriage, and those who do not

Tables

Table 1 Quality of life mentions by age and gender (pooled data 1997, 2002 and 2007)

Age	Women			Men		
	15-25	>64	all	15-25	>64	all
Health	33.78	61.95	57.33	29.02	62.29	50.33
Family	54.05	38.57	52.35	38.96	29.42	41.10
Finance	38.64	20.90	33.21	40.99	27.68	38.14
Happiness	29.75	16.32	27.86	23.69	16.40	23.33
Friends	36.13	19.53	20.09	33.12	11.16	15.65
Leisure	10.84	23.36	15.08	18.33	24.39	19.31
Home comforts	15.58	11.77	12.36	14.88	10.27	11.74
Employment	19.45	0.63	9.33	23.56	1.49	13.94
Misc other	8.27	10.10	8.36	7.20	8.29	7.81
Time for self	5.00	3.58	7.74	6.26	5.00	10.00
Freedom	4.52	12.07	6.93	5.49	10.70	7.59
Other material	11.85	6.50	6.47	10.94	6.92	6.75
Other personal	6.55	4.46	4.97	6.36	3.75	4.79
Spiritual	1.72	7.96	3.91	2.52	6.16	3.64
Environment	2.60	3.39	3.77	4.58	6.40	6.52
Negatives	1.69	4.78	3.47	2.81	4.73	4.21
N	3,543	4,307	21,945	3,098	3,280	18,303

Table 2 Effect of gender and age on perceptions of what matters for quality of life. Probit with individual random effects (z-statistics in parentheses)

	Health	Family	Finance	Happiness
Female	0.419*** (9.06)	0.450*** (10.20)	-0.052 (-1.19)	0.389*** (9.05)
Age	0.019*** (25.97)	-0.009*** (-12.99)	-0.008*** (-12.61)	-0.006*** (-8.48)
Age x female	-0.005*** (-4.81)	-0.002* (-2.29)	-0.002* (-2.48)	-0.005*** (-5.67)
2002 wave dummy	0.101*** (5.45)	0.137*** (7.52)	-0.113*** (-6.20)	-0.003 (-0.15)
2007 wave dummy	0.032 (1.64)	0.355*** (18.77)	-0.083*** (-4.44)	-0.176*** (-9.10)
Constant	-0.903*** (-24.65)	-0.058 (-1.70)	0.081* (2.41)	-0.512*** (-14.98)
ll	-26299.54	-26635.2	-25441.49	-22455.1
N	40,247	40,247	40,247	40,247
N groups	22,099	22,099	22,099	22,099

	Friends	Leisure	Home comforts	Employment
Female	-0.132* (-2.50)	-0.498*** (-10.16)	0.012 (0.24)	-0.168** (-3.10)
Age	-0.019*** (-20.51)	0.005*** (6.90)	-0.005*** (-6.09)	-0.024*** (-25.63)
Age x female	0.009*** (7.76)	0.006*** (6.36)	0.001 (0.60)	-0.003* (-2.21)
2002 wave dummy	-0.211*** (-9.42)	0.043* (2.08)	-0.268*** (-12.28)	-0.275*** (-11.62)
2007 wave dummy	-0.007 (-0.33)	-0.011 (-0.51)	-0.480*** (-20.00)	-0.264*** (-10.82)
Constant	-0.424*** (-10.13)	-1.235*** (-32.17)	-0.903*** (-22.07)	-0.070 (-1.73)
ll	-18112.64	-17935.19	-14465.62	-13049.17
N	40,247	40,247	40,247	40,247
N groups	22,099	22,099	22,099	22,099

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3 Effect of selected life events on perceptions of what matters for quality of life. Probit with individual random effects (Part 1) (z-statistics in parentheses)

	Health	Family	Finance	Happiness
Female	0.357*** (7.10)	0.464*** (9.68)	-0.075 (-1.57)	0.340*** (7.16)
Age	0.020*** (23.33)	-0.008*** (-9.73)	-0.009*** (-12.00)	-0.005*** (-5.86)
Age x female	-0.003** (-2.95)	-0.002 (-1.82)	-0.002 (-1.45)	-0.005*** (-4.41)
2002 wave dummy	0.116*** (6.17)	0.163*** (8.82)	-0.098*** (-5.28)	0.012 (0.66)
2007 wave dummy	0.043* (2.22)	0.383*** (19.73)	-0.070*** (-3.64)	-0.161*** (-8.09)
Enter partnership, last 5 years	-0.020 (-0.35)	0.145** (2.68)	0.044 (0.82)	0.148** (2.71)
Partnership x female	-0.058 (-0.77)	-0.110 (-1.51)	0.061 (0.85)	-0.038 (-0.52)
Enter partnership, > 5 years	0.124*** (3.41)	0.128*** (3.60)	0.137*** (3.96)	0.093** (2.64)
Partnership > 5 years x female	0.057 (1.17)	-0.012 (-0.26)	0.025 (0.54)	0.024 (0.51)
Child born, last 5 years	0.119 (1.64)	0.691*** (9.51)	-0.126 (-1.79)	0.072 (1.01)
Child born x female	-0.076 (-0.76)	-0.184 (-1.81)	-0.003 (-0.03)	0.150 (1.55)
Child born, > 5 years	0.009 (0.19)	0.405*** (8.40)	-0.046 (-0.97)	-0.029 (-0.62)
Child born > 5 years x female	0.114 (1.67)	-0.107 (-1.63)	-0.105 (-1.63)	0.246*** (3.90)
Last child leaves home, last 5 years	-0.009 (-0.17)	-0.042 (-0.80)	0.073 (1.42)	-0.016 (-0.30)
Last child x female	0.082 (1.12)	-0.057 (-0.80)	0.047 (0.66)	0.003 (0.05)
Last child leaves home, > 5 years	0.141 (1.78)	-0.211** (-2.76)	0.126 (1.67)	0.060 (0.76)
Last child > 5 years x female	-0.193 (-1.78)	0.143 (1.38)	0.006 (0.06)	-0.131 (-1.23)
Retired, last 5 years	0.121* (1.97)	-0.198** (-3.26)	0.095 (1.62)	-0.090 (-1.42)
Retired x female	-0.197* (-2.47)	0.154* (1.99)	-0.093 (-1.20)	-0.069 (-0.84)
Retired, > 5 years	-0.324*** (-5.64)	-0.158** (-2.74)	-0.057 (-1.01)	-0.230*** (-3.88)
Retired > 5 years x female	-0.078 (-1.04)	0.016 (0.22)	-0.020 (-0.26)	0.061 (0.79)
Constant	-0.963*** (-24.52)	-0.203*** (-5.50)	0.080* (2.20)	-0.582*** (-15.64)
ll	-26186.83	-26414.93	-25403.44	-22380.3
N	40,247	40,247	40,247	40,247
N groups	22,099	22,099	22,099	22,099

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 4 Effect of selected life events on perceptions of what matters for quality of life. Probit with individual random effects (Part 2) (z-statistics in parentheses)

	Friends	Leisure	Home comforts	Employment
Female	-0.107 (-1.91)	-0.461*** (-8.54)	0.075 (1.32)	-0.141* (-2.42)
Age	-0.021*** (-19.48)	0.005*** (6.54)	-0.005*** (-4.86)	-0.021*** (-19.46)
Age x female	0.008*** (6.44)	0.005*** (4.35)	-0.001 (-0.44)	-0.003* (-2.10)
2002 wave dummy	-0.239*** (-10.49)	0.033 (1.53)	-0.271*** (-12.17)	-0.301*** (-12.32)
2007 wave dummy	-0.028 (-1.20)	-0.021 (-0.96)	-0.484*** (-19.76)	-0.286*** (-11.26)
Enter partnership, last 5 years	-0.271*** (-4.03)	-0.007 (-0.11)	0.198** (3.13)	-0.061 (-0.98)
Partnership x female	0.085 (0.96)	0.014 (0.16)	-0.117 (-1.36)	0.035 (0.40)
Enter partnership, > 5 years	-0.221*** (-4.69)	-0.062 (-1.67)	-0.004 (-0.09)	0.075 (1.66)
Partnership > 5 years x female	0.037 (0.61)	0.074 (1.48)	-0.051 (-0.90)	-0.091 (-1.42)
Child born, last 5 years	-0.352*** (-3.63)	-0.070 (-0.86)	-0.133 (-1.45)	-0.144 (-1.72)
Child born x female	-0.055 (-0.42)	-0.063 (-0.52)	0.193 (1.58)	-0.118 (-0.95)
Child born, > 5 years	-0.172** (-2.62)	-0.091 (-1.75)	-0.092 (-1.59)	-0.058 (-1.03)
Child born > 5 years x female	-0.189* (-2.18)	-0.081 (-1.10)	-0.097 (-1.22)	-0.032 (-0.40)
Last child leaves home, last 5 years	-0.129 (-1.72)	-0.021 (-0.36)	-0.013 (-0.18)	0.014 (0.22)
Last child x female	0.035 (0.35)	-0.023 (-0.27)	-0.013 (-0.14)	0.091 (0.98)
Last child leaves home, > 5 years	-0.015 (-0.13)	0.066 (0.79)	-0.013 (-0.12)	0.261** (2.70)
Last child > 5 years x female	0.177 (1.25)	0.051 (0.44)	-0.087 (-0.59)	0.109 (0.80)
Retired, last 5 years	0.289*** (3.60)	-0.012 (-0.18)	0.003 (0.04)	-1.330*** (-6.48)
Retired x female	-0.187 (-1.88)	0.044 (0.54)	0.034 (0.34)	0.388 (1.46)
Retired, > 5 years	0.538*** (7.19)	-0.033 (-0.57)	0.008 (0.12)	-0.918*** (-6.89)
Retired > 5 years x female	-0.176 (-1.88)	0.063 (0.84)	0.169 (1.90)	0.095 (0.47)
Constant	-0.257*** (-5.80)	-1.220*** (-29.55)	-0.903*** (-20.33)	-0.157*** (-3.67)
ll	-17932.33	-17918.25	-14433.18	-12920.54
N	40,247	40,247	40,247	40,247
N groups	22,099	22,099	22,099	22,099

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix A

Perceptions of what matters for quality of life (See Taylor et al., 2009, Appendix 3.18 for the full list of possible mentions)

Question 1:

Would you take a moment to think about what 'quality of life' means to you, and tell me what things you consider are important for your own quality of life?

Coding of mentions: based on BHPS manual Appendix 3.18

1. Health: good health, mobility, living and breathing, personal welfare
2. Family: children and grandchildren, partner, marriage, other family members, family in general
3. Finance: finances, money, standard of living
4. Happiness: happiness, peace of mind, security
5. Friends: friends, friendship
6. Leisure: food, cooking, having a drink, music, radio, theatre, sports, walking, exercise, TV, gardening, nature in general, reading, writing, painting, travel, incl. holidays abroad, getting out and about (going places generally), other leisure/pleasure activities (not elsewhere codable), exercising
7. Home comforts: home comforts, roof over head, regular meals, domestic hygiene
8. Employment: employment, job satisfaction
9. Misc other: Safety, lack of fear, neighbors, pets, other relationships, other positive mentions, other
10. Freedom: freedom, independence
11. Time self: time for self, not too overworked, life in balance, sleep, no stress
12. Other material: consumption, shopping, getting new things, car, transport, education (own, children's, standard of system in general), other material benefits
13. Other personal: Other personal characteristics (not elsewhere specified), love, sense of humor, personal cleanliness
14. Spiritual: religion, treating others well, equality, tolerance, helping others, voluntary work, community participation, political activities, other spiritual, moral, community aspects, law and order
15. Environment: good recreational facilities, neighborhood - specific rural/urban benefits, neighborhood general mention, likes area or neighborhood, environment, lack of pollution, general mention of environment, lack of crime, safe area, climate, weather, other local/environment mentions (not elsewhere codable), news and current affairs
16. Negatives: (this could be by implication, i.e. need more/better) need better personal characteristics less worry, better health, more happiness; need better material characteristics more money, better job; more leisure, recreation; more morality, spiritual, community spirit; better relationships; improvements in locality, environment, e.g. less crime, less crowds; other negative mentions (not elsewhere codable), need more time

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